

What is claimed is:

- 1 1. An isolated nucleic acid molecule selected from the group consisting of:
- 2 a) a nucleic acid molecule comprising a nucleotide sequence which is at least
- 3 70% identical to the nucleotide sequence of SEQ ID NO:1, 3, 11, or 13;
- 4 b) a nucleic acid molecule comprising a fragment of at least 311 nucleotides of
- 5 the nucleotide sequence of SEQ ID NO:1, 3, 11, or 13;
- 6 c) a nucleic acid molecule which encodes a polypeptide comprising the amino
- 7 acid sequence of SEQ ID NO:2 or 12;
- 8 d) a nucleic acid molecule which encodes a fragment of a polypeptide
- 9 comprising the amino acid sequence of SEQ ID NO:2 or 12, wherein the fragment
- 10 comprises at least 15 contiguous amino acids of SEQ ID NO: 2 or 12; and
- 11 e) a nucleic acid molecule which encodes a naturally occurring allelic variant of
- 12 a polypeptide comprising the amino acid sequence of SEQ ID NO:2 or 12, wherein the
- 13 nucleic acid molecule hybridizes to a nucleic acid molecule comprising SEQ ID NO:1, 3,
- 14 11, or 13, or a complement thereof, under stringent conditions.

- 1 2. The isolated nucleic acid molecule of claim 1, which is selected from the
- 2 group consisting of:
- 3 a) a nucleic acid comprising the nucleotide sequence of SEQ ID NO:1, 3, 11, or
- 4 13; and
- 5 b) a nucleic acid molecule which encodes a polypeptide comprising the amino
- 6 acid sequence of SEQ ID NO:2 or 12.

- 1 3. The nucleic acid molecule of claim 1 further comprising a vector nucleic acid
- 2 sequence.

- 1 4. The nucleic acid molecule of claim 1 further comprising a nucleic acid
- 2 sequence encoding a heterologous polypeptide.

- 1 5. A host cell which contains the nucleic acid molecule of claim 1.

- 1 6. The host cell of claim 5 which is a mammalian host cell.

1 7. A non-human mammalian host cell containing the nucleic acid molecule of
2 claim 1.

1 8. An isolated polypeptide selected from the group consisting of:

2 a) a polypeptide which is encoded by a nucleic acid molecule comprising a
3 nucleotide sequence which is at least 70% identical to a nucleic acid comprising the
4 nucleotide sequence of SEQ ID NO:1, 3, 11, or 13;

5 b) a naturally occurring allelic variant of a polypeptide comprising the amino
6 acid sequence of SEQ ID NO:2, wherein the polypeptide is encoded by a nucleic acid
7 molecule which hybridizes to a nucleic acid molecule comprising SEQ ID NO:1, 3, 11, or
8 13, or a complement thereof under stringent conditions; and

9 c) a fragment of a polypeptide comprising the amino acid sequence of SEQ ID
10 NO:2 or 12, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID
11 NO:2 or 12.

1 9. The isolated polypeptide of claim 8 comprising the amino acid sequence of
2 SEQ ID NO:2 or 12.

1 10. The polypeptide of claim 8 further comprising a heterologous amino acid
2 sequence.

1 11. An antibody which selectively binds to a polypeptide of claim 8.

1 12. A method for producing a polypeptide selected from the group consisting of:

2 a) a polypeptide comprising the amino acid sequence of SEQ ID NO:2 or 12;

3 b) a polypeptide comprising a fragment of the amino acid sequence of SEQ ID
4 NO:2 or 12, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID
5 NO:2 or 12; and

6 c) a naturally occurring allelic variant of a polypeptide comprising the amino
7 acid sequence of SEQ ID NO:2 or 12, wherein the polypeptide is encoded by a nucleic acid
8 molecule which hybridizes to a nucleic acid molecule comprising SEQ ID NO:1, 3, 11, or
9 13, or a complement thereof under stringent conditions;

10 the method, comprising culturing the host cell of claim 5 under conditions in which
11 the nucleic acid molecule is expressed.

1 13. A method for detecting the presence of a polypeptide of claim 8 in a sample,
2 comprising:

- 3 a) contacting the sample with a compound which selectively binds to a
4 polypeptide of claim 8; and
5 b) determining whether the compound binds to the polypeptide in the sample.

1 14. The method of claim 13, wherein the compound which binds to the
2 polypeptide is an antibody.

1 15. A kit comprising a compound which selectively binds to a polypeptide of
2 claim 8 and instructions for use.

1 16. A method for detecting the presence of a nucleic acid molecule of claim 1 in
2 a sample, comprising the steps of:

- 3 a) contacting the sample with a nucleic acid probe or primer which selectively
4 hybridizes to the nucleic acid molecule; and
5 b) determining whether the nucleic acid probe or primer binds to a nucleic acid
6 molecule in the sample.

1 17. The method of claim 16, wherein the sample comprises mRNA molecules
2 and is contacted with a nucleic acid probe.

1 18. A kit comprising a compound which selectively hybridizes to a nucleic acid
2 molecule of claim 1 and instructions for use.

1 19. A method for identifying a compound which binds to a polypeptide of claim
2 8 comprising the steps of:

- 3 a) contacting a polypeptide, or a cell expressing a polypeptide of claim 8 with a
4 test compound; and
5 b) determining whether the polypeptide binds to the test compound.

1 20. The method of claim 19, wherein the binding of the test compound to the
2 polypeptide is detected by a method selected from the group consisting of:

- 3 a) detection of binding by direct detecting of test compound/polypeptide
4 binding;
5 b) detection of binding using a competition binding assay;
6 c) detection of binding using an assay for 14094-mediated proteolysis.

1 21. A method for modulating the activity of a polypeptide of claim 8 comprising
2 contacting a polypeptide or a cell expressing a polypeptide of claim 8 with a
3 compound which binds to the polypeptide in a sufficient concentration to modulate
4 the activity of the polypeptide.

1 22. A method for identifying a compound which modulates the activity of a
2 polypeptide of claim 8, comprising:
3 a) contacting a polypeptide of claim 8 with a test compound; and
4 determining the effect of the test compound on the activity of the polypeptide to thereby
5 identify a compound which modulates the activity of the polypeptide.

1 23. A method of inhibiting proliferation, or inducing the killing, of a 14094-
2 expressing hyperproliferative cell, comprising contacting the hyperproliferative cell
3 with a compound that modulates the activity or expression of a polypeptide of claim
4 8, in an amount which is effective to reduce or inhibit the proliferation of, or induce
5 the killing of, the hyperproliferative cell.

1 24. The method of claim 23, wherein the compound is selected from the group
2 consisting of a peptide, a phosphopeptide, a small organic molecule, a small
3 inorganic molecule and an antibody.

1 25. The method of claim 23, wherein the compound is an antibody conjugated to
2 a therapeutic moiety selected from the group consisting of a cytotoxin, a cytotoxic
3 agent and a radioactive metal ion.

- 1 26. The method of claim 23, wherein the compound is administered in
2 combination with a cytotoxic agent.
- 1 27. A method of inhibiting proliferation, or inducing the killing, of a 14094-
2 expressing hyperproliferative cell, comprising contacting the hyperproliferative cell
3 with a compound that modulates the activity or expression of a nucleic acid molecule
4 of claim 1, in an amount which is effective to reduce or inhibit the proliferation of, or
5 induce the killing of, the hyperproliferative cell.
- 1 28. The method of claim 27, wherein the compound is an antisense, a ribozyme,
2 or a triple helix molecule.
- 1 29. The method of claim 23, wherein the hyperproliferative cell is found in a
2 solid tumor, a soft tissue tumor, or a metastatic lesion.
- 1 30. The method of claim 23, wherein the hyperproliferative cell is found in a
2 cancer selected from the group consisting of a sarcoma, a carcinoma, and an
3 adenocarcinoma.
- 1 31. The method of claim 23, wherein the hyperproliferative cell is found in a
2 cancer selected from the group consisting of lung cancer, breast cancer, ovarian
3 cancer, liver cancer, and colon cancer.
- 1 32. A method of treating or preventing a disorder characterized by aberrant
2 cellular proliferation or differentiation of a 14094-expressing cell, in a subject,
3 comprising:
4 administering to the subject an effective amount of a compound that modulates the
5 activity or expression of a polypeptide of claim 8; such that the aberrant cellular
6 proliferation or differentiation of the 14094-expressing cell is reduced or inhibited.
- 1 33. A method of treating or preventing a disorder characterized by aberrant
2 cellular proliferation or differentiation of a 14094-expressing cell, in a subject,
3 comprising:

4 administering to the subject an effective amount of a compound that modulates the
5 activity or expression of a nucleic acid molecule of claim 1; such that the aberrant cellular
6 proliferation or differentiation of the 14094-expressing cell is reduced or inhibited.

1 34. The method of either of claim 32, wherein the disorder is a cancer.

1 35. The method of claim 34, wherein the cancer is a solid tumor, a soft tissue
2 tumor, or a metastatic lesion.

1 36. The method of claim 34, wherein the cancer is selected from the group
2 consisting of a sarcoma, a carcinoma, and an adenocarcinoma.

1 37. The method of claim 32, wherein the disorder is selected from the group
2 consisting of lung cancer, breast cancer, and colon cancer.

1 38. The method of claim 32, wherein the subject is a mammal.

1 39. The method of claim 32, wherein the subject is a human.

1 40. The method of claim 32, wherein the compound is selected from the group
2 consisting of a peptide, a phosphopeptide, a small organic molecule, a small
3 inorganic molecule and an antibody.

1 41. The method of claim 32, wherein the compound is an antibody conjugated to
2 a therapeutic moiety selected from the group consisting of a cytotoxin, a cytotoxic
3 agent and a radioactive metal ion.

1 42. The method of claim 32, wherein the compound is administered in
2 combination with a cytotoxic agent.

1 43. The method of claim 42, wherein the cytotoxic agent is selected from the
2 group consisting of an antimicrotubule agent, a topoisomerase I inhibitor, a
3 topoisomerase II inhibitor, an antimetabolite, a mitotic inhibitor, an alkylating agent,
4 an intercalating agent, an agent capable of interfering with a signal transduction
5 pathway, an agent that promotes apoptosis or necrosis, and radiation.

- 1 44. The method of claim 13, wherein the sample comprises a cancer cell or
2 tissue.
- 1 45. The method of claim 16, wherein the sample comprises a cancer cell or
2 tissue.
- 1 46. The method of claim 44, wherein the cancer is a solid tumor, a soft tissue
2 tumor, or a metastatic lesion.
- 1 47. The method of claim 45, wherein the cancer is a solid tumor, a soft tissue
2 tumor, or a metastatic lesion.
- 1 48. The method of claim 44, wherein the cancer is selected from the group
2 consisting of a sarcoma, a carcinoma, and an adenocarcinoma.
- 1 49. The method of claim 45, wherein the cancer is selected from the group
2 consisting of a sarcoma, a carcinoma, and an adenocarcinoma.
- 1 50. The method of claim 44, wherein the cancer is selected from the group
2 consisting of lung cancer, breast cancer, ovarian cancer, liver cancer, and colon
3 cancer.
- 1 51. The method of claim 45, wherein the cancer is selected from the group
2 consisting of lung cancer, breast cancer, ovarian cancer, liver cancer, and colon cancer.
- 1 52. A method for evaluating the efficacy of a treatment of a proliferative
2 disorder, in a subject, comprising:
3 treating a subject with a protocol under evaluation;
4 evaluating the expression of a 14094 nucleic acid or polypeptide,
5 wherein a change in the level of 14094 nucleic acid or polypeptide after treatment,
6 relative to the level of expression before treatment, is indicative of the efficacy of the
7 treatment of the disorder.

- 1 53. The method of claim 52 wherein the proliferative disorder is a cancer of the
- 2 lung, breast, ovary, liver, and colon.